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OUTLOOK BY DENVER AREA OCCUPATIONS. OCCUPATIONS IN COLORADO,
PART II.

COLORADO STATE UNIV., FT. COLLINS

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FORT COLLINS, RESEARCH COORDINATING UNIT

EMPLOYMENT STATISTICS FOR 1960, ESTIMATED EMPLOYMENT FOR
1965 AND 1970, ESTIMATES OF ADDITIONAL WORKERS NEEDED BY
1970, AND SALARY INFORMATION ARE PROVIDED FOR A WIDE RANGE OF
OCCUPATIONS IN THE DENVER AREA. DATA WERE OBTAINED FROM A
DENVER STUDY, "JOBS AND THE FUTURE," BY ROBERT VAUGHAN OF THE
MOUNTAIN STATES TELEPHONE CO., 1962, AND THE U.S. DEPARTMENT
OF LABOR REPORTS. NATIONAL DATA ARE ALSO INCLUDED TO COMPARE
THE LOCAL DENVER OCCUPATIONS OUTLOOK WITH THE NATION'S JOB
STRUCTURE. INFORMATION IS INCLUDED FOR (1) PROFESSIONAL AND
TECHNICAL OCCUPATIONS, FOR EXAMPLE, ACCOUNTANTS, ARCHITECTS,
CHEMISTS AND NATURAL SCIENTISTS, PERSONNEL WORKERS,
SURVEYORS, AND ELECTRICAL TECHNICIANS, (2) CLERICAL AND SALES
OCCUPATIONS, FOR EXAMPLE, BOOKKEEPERS, CASHIERS,
STENOGRAPHERS AND SECRETARIES, AND TYPISTS, AND (3) SKILLED
AND SEMISKILLED OCCUPATIONS, FOR EXAMPLE, BOILERMAKERS,
CARPENTERS, AND CABINETMAKERS, ELECTRICIANS, MECHANICS AND
REPAIRMEN, PRINTING CRAFTSMEN, APPRENTICES, TRUCK DRIVERS,
AND WELDERS. (PS)

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OCCUPATIONS IN COLORADO

Part II -
Outlook By Denver Area Occupations

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Denver Metropolitan Area Occupations

This report is intended to provide specific information about the current and projected occupational patterns in the Denver area. This was accomplished by drawing together existing sources of occupational information. While this report does not include every occupation in the Denver area, it does represent a wide range of job levels that are important indicators of the overall job structure. Current National information on occupations is also included in the study. This National data was incorporated to compare the local Denver occupations outlook with the Nation's job structure.

Another purpose of this review was to provide information for specific occupations in the Denver area that might reflect the broader picture of the State's occupational framework. However, inferring the State's occupational framework from the Denver Metropolitan area information must be cautioned by the obvious lack of parallel occupations throughout the State. By recognizing the fact that there is a lack of parallel jobs, useful information can be gathered among broad occupational categories rather than information concerned with specific occupations.

Following is the occupational information this report provides.

- (1) Job Titles: General job titles found to be important to the Denver area job outlook from a study "Jobs and the Future", by Robert Vaughan, Mountain States Telephone Co., 1962.
- (2) Denver Area Wage Rates: When applicable, wage rates are provided from the Denver Area Wage Survey, Department of Labor, December, 1965.
- (3) Male and Female Employment: Data from the 1962 Robert Vaughan study.
- (4) Employment in Industry Groups: Information from the 1962 Vaughan study.
- (5) National Employment Outlook and Earnings: Data from the 1966-67 edition, Occupational Outlook Handbook, Department of Labor.

Note: The "Additional Workers Needed by 1970" category is not always the result of the difference between 1960 and 1970 est. employment. Generally, additional workers are also needed because of replacement due to retirement, transfer, and death.

PROFESSIONAL AND
TECHNICAL OCCUPATIONS

Accountants and Auditors

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	3,400	3,600	5,500	2,600
Total Female Employment	800	900	1,400	700

Industrial Groups That Are Expected To
Employ The Largest Number of Male
Accountants & Auditors In The Denver
Area by 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	300
2. Utilities	200
3. Food & Dairy Product Stores	100
4. Wholesale Trade	300
5. Finance, Insurance, & Real Estate	400
6. Public Administration	700
7. Other Industries	300

A general increase in employment in the Denver area is reflected in the expected 300 needed workers in the other industries category. The 3,300 additional workers needed by 1970 place this job in a top rank of expected workers among other professional-technical workers.

Nationally, the employment opportunities for accountants were very good in 1965 and are expected to remain so into the mid-1970's. Provided no business setback occurs, at least 10,000 accountants and auditors will be needed annually. The demand for college-trained accountants will rise faster than demand for persons with a less broad educational background.

Throughout the U.S., starting salaries for new college graduates hired as accountants averaged \$6,400 in 1964. Small firms pay somewhat lower rates. Federal civil service beginning rates go up to \$6,050 per year.

Architects

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	300	300	500	200

Industrial Groups That Are Expected To
Employ The Largest Number Of Architects
In The Denver Area By 1970.

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	100
2. Professional and Related Services	300
3. Other Industries	100

In the Denver area by 1970, employment of architects is not expected to increase rapidly. In terms of actual numbers employed, architects are not expected to occupy a large sector of total employment. Professional and related services are expected to employ the largest number of architects.

On a National basis employment of architects is expected to continue at a rapid growth rate. The expected growth in nonresidential construction is cited as a major factor for the expected growth of this occupation.

Chemists & Natural Scientists

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	2,100	2,300	3,500	1,500
Total Female Employment	200	200	300	100

Industrial Groups That Are Expected To
Employ The Largest Number Of Male Chemists
And Natural Scientists In The Denver Area
By 1970.

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Mining	600
2. Fabricated Metals Manufacturing	200
3. Professional And Related Services	300
4. Public Administration	700
5. Other Industries	900

The 1,600 additional male and female natural scientists needed in the Denver area by 1970 places this job high among needed workers in the professional-technical field. The largest increase in employment is expected in the manufacturing and public administration sectors of the economy.

Nationally, employment in the natural sciences had grown rapidly in recent years, and the outlook is for continued expansion through the mid-1970's. A most important factor underlying this expected increase in employment is the likely growth of funds for research and development.

The growth within this occupation on a National scale is reflected in the expected employment for the Denver area. Expansion of industry and technology in the metropolitan area seems to relate to the growth rate of this occupation.

Designers & Draftsmen

1965 Average Denver Wage Rates
Men: \$105-173 per week

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	2,000	2,200	3,300	1,400
Total Female Employment	200	200	400	200

Industrial Groups That Are Expected To Employ The
Largest Number of Male Designers & Draftsmen In
The Denver Metropolitan Area By 1970.

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	300
2. Fabricated Metals Manufacturing	300
3. Machinery Manufacturing	200
4. Professional And Related Services	500
5. Public Administration	400
6. Other Industries	900

In the Denver metropolitan area the expected increase of 1,600 designers and draftsmen by 1970 places this occupation high in terms of additional workers needed in the professional-technical occupations. Professional and related services and public administration is expected to employ the largest number of workers.

On a National basis employment opportunities for draftsmen is expected to be favorable through the mid-1970's. Prospects will be best for those with post high school drafting training. The rapid rise in employment of draftsmen is seen as a result of the increasingly complex design problems of modern products.

As the engineering and scientific occupations grow, more draftsmen will be needed as supporting personnel.

Wages at beginning levels averaged \$350 per month in early 1964. Senior draftsmen were averaging \$565 a month during the same period.

Engineers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	7,500	8,000	11,000	4,100

Industrial Groups That Are Expected To Employ
The Largest Number Of Male Engineers In The
Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	800
2. Fabricated Metals Manufacturing	2,100
3. Machinery Manufacturing	600
4. Electrical Machinery Manufacturing	600
5. Aircraft Manufacturing	300
6. Rubber & Plastics Manufacturing	300
7. Communications	400
8. Utilities	400
9. Professional & Related Services	1,000
10. Public Administration	1,000
11. Other Industry	1,800

The 4,100 additional engineers needed by 1970 in the Denver metropolitan area reflects an increasing growth rate for this occupation. The spread of this occupation is seen by the fact that over 1,800 engineers are expected to be employed in those industries not elsewhere reported.

Employment opportunities on a National basis are expected to be very good through the mid-1970's. Demand will be especially strong for new engineering graduates with training in the most recently developed engineering principles. The growth of population and expansion of industry are cited as major reasons for the anticipated increase in demand for engineers.

Engineers with bachelor's degrees started at about \$7,425 in mid-1964. Engineers with 21-25 years experience were earning about \$14,500 in 1964.

Lawyers and Judges

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	1,700	1,800	2,600	1,200

Industrial Groups That Are Expected To Employ The
Largest Number of Male Lawyers & Judges In The
Denver Area By 1970

<u>Industry</u>	<u>Number Employed By 1970</u>
1. Professional and Related Services	1,400
2. Public Administration	300
3. Other Industries	600

The 1,200 additional lawyers needed in the Denver area by 1970 place this occupation high among needed professional jobs. A majority of the lawyers in the Denver area are expected to be employed in private practice as reflected in the 1,400 additional workers in professional and related services category.

On a National basis, graduates from widely recognized law schools and those that rank high in their classes will have very good employment prospects through the mid-1970's. The recent trend of lawyers in independent practice is expected to remain stable or decline somewhat. Most of the growth will result from expansion of business and population.

Beginning positions for lawyers started at \$7,200 in early 1964 for private business and industry.

Public Relations Men

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	200	200	400	200

Industrial Groups That Are Expected to Employ
The Largest Number Of Public Relations Men In
The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Nondurable Goods Manufacturing	100
2. Finance, Insurance And Real Estate	100
3. Other Industries	200

The 400 estimated public relations men needed by 1970 in the Denver area rank this occupation low among other professional jobs. Approximately half of the public relations men needed by 1970 will be in the other industries not reported category, thus showing the wide distribution of workers in this field.

Employment Nationally in this occupation is expected to expand rapidly through the mid-1970's. As population and general level of business activity rises, public relations workers will be more in demand.

Personnel Workers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	600	700	1,100	500

Industrial Groups That Are Expected To Employ
The Largest Number Of Male Personnel Workers
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Fabricated Metal Manufacturing	200
2. Public Administration	300
3. Other Industry	400

The 1,100 personnel workers expected in the Denver area by 1970 place this job in the middle range of expected total employment in professional and related occupations. A large per cent of the employment in the field is expected in many industry groups not classified in our report.

Nationally, college graduates are expected to find many opportunities to enter personnel work through the mid-1970's. However, competition for beginning professional positions is likely to be great. As the Nations' employment rises, more personnel workers will be needed to carry on recruiting, interviewing, and related activities.

In early 1964 the beginning wage rate was about \$6,600 for job analyst trainees.

Social Scientists

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	400	500	700	300
Total Female Employment	100	200	300	200

Industrial Groups That Are Expected To Employ
The Largest Number Of Male Social Scientists
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Finance, Insurance, & Real Estate	100
2. Medical and Health Service	100
3. Professional and Related Services	100
4. Public Administration	100
5. Other Industries	200

The 500 needed social scientists places this job in a low rank of additional professional workers in the Denver area by 1970. The distribution of employment in this field is well distributed among four industrial categories.

Nationally, employment in the social sciences has been increasing and is expected to grow rapidly through the mid-1970's. An increase in the number of needed college and university teachers is the primary reason for the expected increase in employment. A moderate rise in employment in government also is expected.

Earnings for beginning positions in colleges and universities averaged \$7,800 per year depending upon an individual's major field of interest.

Social & Welfare Workers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Female Employment	500	600	900	500

Industrial Groups That Are Expected To Employ
The Largest Number Of Female Social & Welfare
Workers In The Denver Area By 1970.

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Medical & Health Services	200
2. Educational Services	100
3. Welfare & Religious Groups	300
4. Public Administration	300

Estimated female employment of 900 workers in the Denver area by 1970 ranks this job as average among other professional occupations. Male employment of social and welfare workers in the Denver area is negligible. Employment is well distributed among the welfare industries.

Employment opportunities for trained social workers on a National basis were excellent in 1965. Over the next 10 year period, as many as 15,000 additional workers will be needed annually. Higher birth rates, housing, minority group problems, and education are all problems of growing importance in America. Social workers will be needed to assist in solving these problems.

In mid-1964 the average starting wage was \$4,700 in State agencies.

Surveyors

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	200	200	300	100

Industrial Groups That Are Expected To Employ
The Largest Number Of Male Surveyors In The
Denver Area By 1970

<u>Industry</u>	<u>Number Employed By 1970</u>
1. Construction	100
2. Educational Services	100
3. Public Administration	100

The 100 additional surveyors needed in the Denver area by 1970 places this job low for needed workers in professional-technical occupations. Employment is evenly spread out among 3 major industry groups.

National employment opportunities for surveyors are expected to be favorable through the 1970's. Rapid growth is predicted not only by new positions opening but replacement of those who transfer to other occupations. Prospects will be best for those with a post secondary education.

Government workers started at about \$415 monthly in early 1965.

Electrical Technicians

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	700	800	1,600	800

Industrial Groups That Are Expected To Employ
The Largest Number of Electrical Technicians
In The Denver Area By 1970.

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Fabricated Metals Manufacturing	400
2. Electrical Machinery Manufacturing	300
3. Public Administration	200
4. Other Industries	600

Employment of electrical technicians in the Denver area is expected to increase rapidly until 1970. Employment is expected to be spread out among 3 industry groups and a large number of workers will be employed in other industries not given in this report.

On a National basis, opportunities for engineering and science technicians are expected to be good through the mid-1970's. In recent years, technician jobs have been among the fastest growing occupations and it is estimated that this growth rate will continue. The demand will be greatest for graduates of post-secondary school training programs.

The expected good growth rate for this occupation is related to the anticipated expansion of industry and increasing modern technology.

In 1964, graduates of post-high school technical schools began at \$5,000 in private industry on a nationwide basis. In the Federal Government agencies, salaries began at \$4,005 to \$5,000 depending upon the applicants qualifications.

Medical & Dental Technicians

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	400	400	600	200
Total Female Employment	700	700	1,100	400

Industrial Groups That Are Expected To Employ
The Largest Number of Medical & Dental Technicians
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Manufacturing	200
2. Medical and Health Services	1,300
3. Educational Services	100

In the Denver Area by 1970 an increase of 600 workers is expected in the medical-dental technicians field. Employment of women in the Denver area is expected by 1970 to exceed men by 2 to 1. The largest numbers of workers are to be employed in the medical and health services.

On a National basis, medical technologists are expected to increase rapidly through the mid-1970's. The four year college graduate is expected to have the better job opportunities. An increasing dependence on laboratory tests by doctors is expected to be a determining factor in the expanding numbers of medical technologists.

The average annual salary for registered medical technologists was \$5,190 in 1963. Government workers started at \$5,000 per year in early 1965.

CLERICAL AND SALES

OCCUPATIONS

Bookkeepers

1965 Average Denver Wage Rates:

Men: \$76--\$123 per week

Women: \$72--\$107 per week

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	1,200	1,300	1,300	300
Total Female Employment	5,100	5,400	6,400	1,700

Industrial Groups That Are Expected To Employ The Largest Number Of Bookkeepers In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	400
2. Food & Kindred Products Manufacturing	300
3. Printing & Publishing	200
4. Wholesale Trade	700
5. General Merchandise Stores	200
6. General Retail Trade	1,000
7. Finance, Insurance, and Real Estate	1,500
8. Business Services	200
9. Repair Services	200
10. Medical & Health Services	200
11. Professional & Related Services	400
12. Public Administration	500

The 7,700 bookkeepers expecting to be employed by 1970 in the Denver area places this job high among expected clerical and kindred occupations. Employment is expected to be moderate to heavy among 12 industrial groups. Female employment is expected to exceed male employment by about 6 to 1.

The number of bookkeepers is expected to increase rapidly through the mid-1970's. The annual employment is expected to exceed 75,000 each year on the National level. Employees who are qualified to assume responsibility for a complete set of books are expected to be in great demand over the next decade.

Wages for bookkeeping workers in 1963064 at beginning levels ranged from \$74.50 weekly for female workers to \$91.00 weekly for male employees.

Cashiers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	700	800	900	300
Total Female Employment	2,300	2,500	3,300	1,200

Industrial Groups That Are Expected To Employ
The Largest Number Of Cashiers In The Denver
Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Food Product Stores	1,200
2. General Merchandise Stores	300
3. Eating & Drinking Places	400
4. Other Retail Trade	500
5. Finance, Insurance, & Real Estate	300
6. Entertainment Services	200

The 4,200 cashiers needed in the Denver area by 1970 place this job in the middle range of needed clerical and kindred workers. The largest per cent of employment is expected in the food product retail stores. Female employment is expected to rate about 3 to 1 over male cashiers in the Denver area.

Nationally, employment is expected to increase rapidly during the period 1965-75. Over 75,000 workers will be needed annually to fill new cashier positions. Employment is expected to increase primarily because of the expected expansion in business. The addition of more retail stores, and the adoption of more self-service operations will create new jobs for cashiers.

The salaries paid for beginning cashiers are often near the minimum wage, or \$1.25 per hour. Some cashiers, such as those who work in grocery stores earn more than \$2.00 per hour.

Shipping, Receiving and Stock Clerks

1965 Average Denver Wage Rates
\$2.33 - \$2.92 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	2,800	3,000	3,600	1,200

Industrial Groups That Are Expected To Employ
The Largest Number Of Male Stock Clerks In
The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Rubber and Plastic Manufacturing	200
2. Wholesale Trade	500
3. General Merchandise Stores	200
4. Public Administration	200
5. Other Industries	900

The 1,200 additional shipping clerks needed in the Denver Area by 1970 place this job in an advanced level of needed clerical and kindred occupations. Employment in this occupation is expected to be well distributed among four industrial groups.

On a National basis, 10,000 job openings annually are expected during the period 1965-75. Openings will result from replacements of older workers and workers who transfer to other jobs. As the quantity of goods distributed increases with expanding population and business, the number of shipping and receiving clerks is likely to rise moderately through 1975.

Men employed as shipping and receiving clerks in urban areas averaged \$2.50 an hour for the period 1963-64. Salaries tended to be slightly higher in wholesale firms and public utilities companies.

Office Machine Operators

1965 Average Denver Wage Rates
\$63-\$89 per week

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Female Employment	2,400	2,600	4,600	2,300

Industrial Groups That Are Expected To Employ
The Largest Number Of Office Machine Operators
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Fabricated Metal Manufacturing	200
2. Food Products Manufacturing	200
3. Communications	200
4. Wholesale Trade	300
5. Food Product Stores	200
6. General Merchandise Stores	200
7. Other Retail Trade	200
8. Finance, Insurance & Real Estate	600
9. Public Administration	600
10. Other Industries	900

In the Denver area by 1970, 2,300 additional office machine operators will be needed. Rapid expansion is predicted for the period 1960-70. Employment in this occupation is expected to spread to many sectors of the economy as reflected in the number of anticipated workers in the other industries category.

On a National basis, the number of office machine operators is expected to increase rapidly during the 1965-70 period. Over 50,000 job openings are expected annually. Growth in this occupation is expected to parallel the growth of business activity. The development of new machines will be another factor for expansion in this area of employment.

Average weekly salaries for the period 1963-64 ranged from \$73.00 to \$88.00.

Stenographers & Secretaries

1965 Average Denver Wage Rates
\$72-\$125 per week

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Female Employment	13,000	13,900	18,400	6,300

Industrial Groups That Are Expected To Employ
The Largest Number Of Stenographers & Secretaries
In The Denver Area By 1970

Industry	Number Employed by 1970
1. Mining	500
2. Construction	400
3. Fabricated Metal Manufacturing	1,000
4. Food Products Manufacturing	400
5. Wholesale Trade	1,400
6. Other Retail Trade	500
7. Finance, Insurance, & Real Estate	2,500
8. Business Services	500
9. Medical Services	1,300
10. Government Educational Services	1,100
11. Welfare and Religious Services	900
12. Other Professional Services	1,400
13. Public Administration	1,500

The additional 6,300 stenographers and secretaries needed by 1970 in the Denver area places this occupation high among needed clerical and related workers. The distribution of employment in this occupation is expected to be largely distributed among 13 major industrial groups. High employment is expected in the finance and wholesale trade areas.

The National outlook is good for workers with stenographic skills through the early 1970's. A very rapid increase in employment is expected. More than 200,000 openings annually during the next ten years is anticipated. Since turnover is high among secretaries, many of the openings will result from replacements of other workers.

Weekly salary for secretaries in 1963-64 ranged from \$79.50 to \$99.50 in large metropolitan areas.

Telephone Operators

1965 Average Denver Wage Rates
\$53 - \$95 per week

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Female Employment	2,300	2,400	2,800	700

Industrial Groups That Are Expected To Employ
The Largest Number Of Telephone Operators In
The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Communications	1,300
2. Medical Services	200

Employment of telephone operators is not expected to increase greatly in the Denver area by 1970. With only 700 additional workers expected, this occupation does not rank high among other clerical and related jobs. As expected the largest employment will be in the communications area.

The National outlook for telephone operators is expected to show a low rate of increase during the 1965-75 period. The innovation of direct dialing and other changes have produced a marked decline in central office operator employment. The number of PBX operators is expected to rise, however, over the next decade.

Central office operators in training averaged \$1.74 an hour in late 1964. Experienced operators were averaging \$2.11 an hour.

Typists

1965 Average Denver Wage Rates
\$63 - \$88 per week

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Female Employment	3,800	4,000	5,200	1,600

Industrial Groups That Are Expected To Employ
The Largest Number Of Typists In The Denver
Area By 1970

Industry	Number Employed by 1970
1. Fabricated Metal Manufacturing	200
2. Communications	200
3. Wholesale Trade	300
4. Other Retail Trade	200
5. Finance, Insurance, & Real Estate	800
6. Business Services	300
7. Medical Services	200
8. Government Educational Services	200
9. Public Administration	1,200
10. Other Industries	200

In the Denver Metropolitan area by 1970 over 1,600 additional typists will be needed. This number of additional workers ranks this job high among needed clerical occupations. Employment is expected to be heaviest in the public administration area, but the largest per cent of employment is expected to be well distributed among nine major industrial groups.

Nationally, over 50,000 openings are predicted each year until the early 1970's. Openings, for the most part, will be for workers to replace typists who stop working for various reasons. As the volume of paper work grows, the number of typists is expected to increase rapidly.

Salaries at beginning levels ranged from \$53.50 to \$76.50 a week in 1963-64.

Sales Workers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	19,700	21,100	25,600	9,400
Total Female Employment	9,300	9,900	12,600	4,500

Industrial Groups That Are Expected To Employ
The Largest Number Of Sales Workers In The
Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	600
2. Fabricated Metal Manufacturing	400
3. Electrical Machinery Manufacturing	400
4. Food Products Manufacturing	900
5. Printing & Publishing	1,600
6. Chemicals Manufacturing	400
7. Wholesale Trade	4,700
8. Food Products Retailing	2,200
9. General Merchandise Stores	7,100
10. Other Retail Stores	9,500
11. Finance, Insurance, & Real Estate	6,200
12. Business Services	500

In the Denver Metropolitan area the total employment of sales workers as an occupational group was high in 1960, and it is expected to remain high in 1970. The additional 9,400 male workers and 4,500 female workers by 1970 ranks this occupation high for needed employees.

According to National information, the number of sales workers has increased rapidly since 1950. In certain fields, however, the rate of increase has been greater than in others. Industrial groups that have experienced the largest increase in sales workers include: real estate, insurance, manufacturing, and wholesaling. These national estimates of industrial groups increasing employment of sales workers conforms with the Denver area's expected employment. Retail sales employ the largest per cent of the salesworkers, but it is also one of the industries with a low rate of increase of number of sales workers employed.

Wages and earning among sales personnel varies widely between business firms and industrial groups.

SKILLED AND
SEMISKILLED
OCCUPATIONS

Boilermakers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	100	100	100	-----

Industrial Groups That Are Expected To Employ
The Largest Number Of Boilermakers In The
Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Durable Goods Manufacturing	100

The number of boilermakers in the Denver area is expected to remain about the same through 1970. The 100 presently employed workers has little effect on the total craftsmen's employment outlook.

Nationally, employment of boilermakers and layout men is expected to increase moderately until the mid-1970's. This projection assumes relatively full employment and continued high levels of business activity. Growth of those industries that use boiler products is the major reason for the moderate expansion of this occupation.

As of June, 1964, boilermaker's minimum hourly wage was \$4.72 in 56 major cities.

Carpenters & Cabinetmakers

1965 Average Denver Wage Rates
\$3.00 - \$3.44 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	5,000	5,500	6,100	2,200

Industrial Groups That Are Expected To Employ
The Largest Number Of Carpenters & Cabinetmakers
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	4,800
2. Furniture and Wood Products Manufacturing	300
3. Other Retail Trade	200
4. Other Industries	200

In the Denver area over 2,200 additional carpenters and cabinetmakers are expected by 1970. The 6,100 total employed by 1970 places this job high among other craftsmen occupations. The construction industry is expected to employ over 2/3 of the workers in this occupation.

The National outlook for carpenters is moderately good. Their number is expected to increase slowly through 1975. Of the more than 800,000 carpenters employed in 1964, several thousand each year will leave because of transfers, retirement, or death. The large rise in construction is a primary factor for the increasing need of carpenters. In addition, more carpenters will be needed in maintenance departments of factories. However, automation and the use of prefabricated materials will somewhat limit the rate of growth in this occupation.

Union minimum hourly wage rates for carpenters averaged \$4.36 as of July, 1964.

Blacksmiths, Forgemen & Hammermen

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	100	----	----	----

The employment outlook for blacksmiths in the Denver area by 1970 is not good. An actual decline in employment is projected.

On a National basis, the number of blacksmiths is expected to decline moderately through mid-1970. However, several hundred jobs will arise each year from replacements. The expected decline in employment is related to the number of forge shops that are producing small metal articles that once were produced by blacksmiths.

Cranemen, Hoistmen, & Construction Machine Operators

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	200	300	400	200

Industrial Groups That Are Expected To Employ
The Largest Numbers Of Construction Machine
Operators In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	200
2. Fabricated Metal Manufacturing	100
3. Nondurable Goods Manufacturing	100

In the Denver area by 1970, employment of construction machine operators is expected to number 400. Approximately half of the employment will be in the construction industry itself.

Nationally, employment of construction machine operators is expected to increase rapidly through 1975. Many thousands of additional jobs will result from the need to replace experienced workers who transfer or terminate. Due to the anticipated growth in construction activity, employment in this field is expected to maintain its rapid increase. The trend toward the increasing use of construction machinery shows every sign of continuing. More specialized and complex machinery is expected to be put into use.

The wage structure for construction machine operators is more complicated than any other construction trade. Union minimum wages in July, 1964, ranged from \$3.45 to \$6.20 per hour.

Electricians

1965 Average Denver Wage Rates
\$3.20-\$3.58 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	1,700	1,800	2,200	800

Industrial Groups That Are Expected To Employ
The Largest Numbers Of Electricians In The
Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	1,200
2. Fabricated Metal Manufacturing	200
3. Public Administration	100
4. Other Industries	300

Employment of electricians in the Denver area is expected to increase moderately until 1970. The construction industry is expected to employ about 2/3 of the total workers by 1970, although it can be seen that employment of electricians in other industries is expected to be substantial.

On a national basis, employment of construction electricians is expected to increase rapidly through the mid-1970's. This increase in employment is expected mainly because of the anticipated large expansion in the construction business. Greater requirements for electrical outlets and wiring systems for data-processing equipment. will contribute to increased employment of electricians.

Union minimum hourly wages as of July, 1964, averaged \$4.68 for journeymen.

Machinists & Job Setters

1965 Average Denver Wage Rate
\$3.15-\$3.45 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	2,100	2,300	2,800	1,100

Industrial Groups That Are Expected To Employ
The Largest Numbers Of Machinists In The Denver
Area By 1970

Industry	Number Employed by 1970
1. Fabricated Metal Manufacturing	600
2. Machinery Manufacturing	700
3. Electrical Machinery Manufacturing	300
4. Aircraft Manufacturing	200
5. Rubber Products Manufacturing	200
6. Public Administration	100
7. Other Industries	300

Employment of machinists in the Denver area by 1970 is expected to increase rather rapidly. Over 1,100 new employees are expected to be employed by 1970. Fabricated metals and machinery manufacturing are expected to employ the largest number of machinists and job setters.

On a national basis, a moderate increase is expected in the number of machinists during the 1965-75 decade as a result of the anticipated expansion of metalworking activities. In maintenance shops, the employment of machinists is expected to increase as a result of expanded industrial use of complex machinery and equipment.

Maintenance machinists averaged \$2.15 to \$3.60 per hour during the 1964-65 period. Wages varied from city to city.

Mechanics & Repairmen

1965 Average Denver Wage Rates
\$3.00-\$3.55 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	12,100	12,900	15,800	5,800

Industrial Groups That Are Expected To Employ
The Largest Numbers Of Mechanics And Repairmen
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	600
2. Fabricated Metal Manufacturing	700
3. Machinery Manufacturing	400
4. Electrical Machinery Manufacturing	300
5. Other Durable Goods Manufacturing	300
6. Food Products Manufacturing	500
7. Rubber Products Manufacturing	300
8. Trucking Service	700
9. Utilities & Sanitary Services	700
10. Wholesale Trade	800
11. Other Retail Trade	2,400
12. Finance, Insurance & Real Estate	300
13. Repair Services	2,700
14. Government Educational Services	300
15. Public Administration	800
16. Other Industries	700

The number of mechanics and repairmen employed in the Denver area is high among other skilled craftsmen trades. A moderate increase in employment is predicted by 1970, but in terms of actual numbers this occupation will add over 5,000 workers to the Denver labor force. Repair services and other retail trade are expected to hire the largest number of mechanics by 1970, but employment will be spread out over 16 industrial groups.

Nationally, the employment outlook for mechanics and repairmen as a whole is very favorable through the mid-1970's. Excellent employment opportunities are expected for several occupations: vending machine mechanics, business machine servicemen, instrument repairmen, and appliance servicemen. The anticipated rise in expenditures for new plant and equipment will result in more mechanization and the use of more complex machines.

Wage rates for beginning levels varied greatly depending on area and type of job. Average rates ranged from \$1.60 to \$2.00 per hour at beginning levels.

Millwrights

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	100	100	100	---

Industrial Groups That Are Expected To Employ
The Largest Number Of Millwrights In The Denver
Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Durable Goods Manufacturing	100

Employment of millwrights in the Denver area is expected to remain small until 1970. No increase in employment is predicted for this occupation. Durable goods manufacturing will be the only major source of employment.

Nationally, employment of millwrights is expected to increase moderately through 1975. The building of new plants, the addition of new machinery, and changes in plant layouts are factors expected to increase employment of millwrights.

Average straight time hourly earnings of millwrights employed in manufacturing industries surveyed in 1964-65, ranged from \$2.66 to \$3.63. More than 80% of these workers earned \$3.00 an hour or more.

Plumbers & Pipefitters

1965 Average Denver Wage Rates
\$3.19-\$3.47 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	1,800	2,000	2,400	900

Industrial Groups That Are Expected To Employ
The Largest Number Of Plumbers & Pipefitters
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	1,600
2. Total Manufacturing	400
3. Utilities Services	100
4. Public Administration	100
5. Other Industries	100

The employment of plumbers and pipefitters is expected to be moderately high in the Denver area by 1970. A moderate increase in employment is predicted for 1970. The construction industry is expected to employ over 2/3 of the workers in this occupation.

On a national basis, employment of plumbers and pipefitters is expected to rise rapidly through 1975. Additional thousands of job opportunities will arise as a result of the need to replace experienced plumbers who retire, transfer, or die. Over 7,000 jobs annually are expected from retirements and deaths alone. The large rise in construction activity is to be the most important contributing factor to increasing employment.

Union minimum hourly wage rates for plumbers averaged \$4.62 to \$4.70 as of July, 1964.

Printing Craftsmen

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	1,800	1,900	2,400	800

Industrial Groups That Are Expected To Employ
The Largest Number Of Printing Craftsmen In
The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Printing & Publishing	2,000
2. Medical & Health Services	100
3. Public Administration	100
4. Other Industries	100

In the Denver area by 1970, employment of printing craftsmen is expected to be moderately high. The 800 additional workers needed by 1970 gives this occupation an average rank among other skilled craftsmen. Naturally, employment in the printing and publishing industry will occupy the largest per cent of printing craftsmen.

Nationally, there will be many opportunities for younger people to enter the skilled printing trades during the 1965-75 decade. Aside from replacement of retiring or terminating workers, a continued rise in the volume of printed material will contribute to a high growth rate in this occupation. More printed matter is expected as a result of population growth, increasingly higher levels of education, expansion of industry, and the trend toward greater use of printed matter.

Earnings of printing craftsmen are among the highest in all manufacturing industries. In 1964, production workers averaged \$2.97 an hour.

Stationary Engineers

1965 Average Denver Wage Rates:
\$3.07--\$3.78 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	2,000	2,200	2,400	800

Industrial Groups That Are Expected To Employ
The Largest Number of Stationary Engineers
In The Denver Area By 1970

Industry	Number Employed by 1970
1. Mining	100
2. Fabricated Metals Manufacturing	800
3. Food & Kindred Products Manufacturing	200
4. Utilities Services	100
5. Wholesale Trade	100
6. Public Administration	200
7. Other Industries	200

In the Denver Metropolitan area by 1970, employment of stationary engineers is expected to be moderate. The addition of 800 new workers into this occupation places this job at an average level for skilled craftsmen occupations. Fabricated metals manufacturing is expected to employ the largest number of workers. However, public administration and other industries are expected to have increases from the 1960 period.

The national outlook for stationary engineers is good through the mid-1970's. A few thousand workers each year are expected as a result of retirement and transfer. The continued use of large stationary boilers and refrigeration equipment is expected to contribute to the increase in employment.

An average hourly wage rate for 62 cities during the 1964-65 period ranged from \$2.19 to \$3.86.

Tinsmiths, Coppersmiths, & Sheet Metal Workers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	700	800	900	300

Industrial Groups That Are Expected To Employ
The Largest Number Of Tinsmiths, Coppersmiths,
And Sheet Metal Workers In The Denver Area By
1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Mining	400
2. Fabricated Metals Manufacturing	200
3. Machinery Manufacturing	100
4. Durable Goods Manufacturing	100
5. Food Products Manufacturing	100

Employment of tinsmiths, coppersmiths, and sheet metal workers in the Denver area by 1970 is expected to be low as compared with other craftsmen's occupations. Mining and fabricated metals manufacturing are expected to employ about 2/3 of the Denver area workers in this occupation.

According to national information, employment of sheet metal workers is expected to increase rapidly through 1975. Due to the anticipated expansion in residential, commercial, and industrial construction, larger numbers of sheetmetal workers will be needed. Another growth factor is the increasing number of air-conditioning systems that are being installed in new and older buildings. Prefabrication is not expected to affect the growth rate in this occupation, since much of sheet metal work is custom made.

Union minimum hourly wage rates for sheetmetal workers averaged \$4.50, as of July, 1964. The hourly wage ranged from \$3.50 to \$5.25.

Apprentices

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	700	800	1,800	1,800

Industrial Groups That Are Expected To Employ
The Largest Number Of Apprentices In The Denver
Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	500
2. Printing and Publishing	200
3. Utilities	200
4. Other Retail Trade	200

Employment of apprentice workers in the Denver area by 1970 is expected to be moderately high. However, the rate of growth within this category of workers is expected to be extremely high. More than a 100% increase is predicted. Most of the new workers will be employed in the construction industry where apprentice trades are more abundant. There is no national information concerning apprentice workers as a specific group.

Assemblers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	600	700	800	300
Total Female Employment	400	500	600	200

Industrial Groups That Are Expected To Employ
The Largest Number Of Assemblers In The Denver
Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Furniture & Wood Products Manufacturing	100
2. Fabricated Metal Manufacturing	200
3. Machinery Manufacturing	300
4. Electrical Machinery Manufacturing	200
5. Motor Equipment Manufacturing	100
6. Nondurable Goods Manufacturing	300

In the Denver area by 1970, over 1,400 male and female assemblers are expected to be employed. Female employment is expected to be almost half of the total number of assemblers. The industrial groups that are expected to employ almost all assemblers are in the manufacturing sector of the economy.

Nationally, many openings for semiskilled assemblers are expected during the next decade. The largest number of job openings are expected to result from replacement of retiring and transferred workers. The electrical machinery industry is expected to increase employment during the 1965-75 decade. However, technological changes are expected to hold down the growth of this occupation.

Wage rates of assemblers in 20 large cities ranged from \$2.13 to \$3.06 hourly.

Metal Filers, Grinders & Polishers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	300	300	400	100

Industrial Groups That Are Expected To Employ
The Largest Number Of Metal Filers, Grinders,
& Polishers In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Fabricated Metals Manufacturing	100
2. Machinery Manufacturing	100
3. Electrical Machinery Manufacturing	100
4. Aircraft Parts Manufacturing	100

Predicted employment of 400 metal workers in the Denver area by 1970 will be low as compared with other skilled craftsmen's occupations. Employment of metal workers is expected to be evenly distributed among four major manufacturing industries.

Many thousands will be hired on a national basis, to replace retiring or transferring metal workers in the next decade. Little to no employment growth is predicted despite the expected rise of metal working occupations. Automation and technological advancement will have a most profound effect in holding down the growth rate of this occupation. Workers with thorough backgrounds in machining, mathematics, blueprint reading, and good working knowledge of metals will have the better chance to adjust to the changing job requirements.

Hourly wage rates in the middle of 1965 ranged from \$2.66 to \$3.61 in 21 major urban centers.

Toolmakers & Die Makers

1965 Average Denver Wage Rates
\$3.36-\$3.75 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	400	400	600	300

Industrial Groups That Are Expected To Employ
The Largest Number Of Toolmakers And Die Makers
In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Fabricated Metals Manufacturing	200
2. Machinery Manufacturing	200
3. Electrical Machinery Manufacturing	200

Employment of tool and die makers in the Denver Metropolitan area by 1970 is expected to be low as compared with other skilled craftsmen occupations. The manufacturing industries of fabricated metals, machinery, and electrical machinery will equally employ 1/3 of the total workers.

On a national basis, employment of tool and die makers is expected to increase moderately through 1975. Most of this growth will be as a result of the anticipated expansion of metal working activities. The skills of the workers will be needed to make the tools and dies used to produce the large numbers of identical metal parts used in industry. They will also be needed to help put many technological developments into effect.

Tool and die makers are among the highest paid machining occupations. In April 1965, wage rates varied from \$3.23 to \$3.88 per hour for 13 major production areas.

Furnacemen, Smeltermen, & Heaters

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	100	----	----	----

It is anticipated that in the Denver area by 1970 there will be little to no employment for furnacemen and smeltermen. The 100 craftsmen employed in 1960 made up only a small portion of the skilled occupations.

Nationally, the foundry industry is expected to hire thousands of workers annually during the next decade. Openings in these occupations will result from the expected moderate growth in foundry jobs and the substantial increase in foundry production. However, foundry employment is expected to rise at a much slower rate than production. Advances in casting and other procedures will cut back on the growth rate.

Average hourly wage rate in 1965 was about \$2.89.

Painters Except Construction

1965 Average Denver Wage Rates
\$3.34-\$3.36 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	500	500	500	100

Industrial Groups That Are Expected To Employ
The Largest Number Of Painters In The Denver
Area By 1970.

Industry	Number Employed by 1970
1. Furniture and Wood Products Manufacturing	100
2. Other Durable Goods Manufacturing	100
3. Other Nondurable Goods Manufacturing	100
4. Retail Stores	100
5. Repair Services	100

Employment of painters in the Denver area by 1970 is expected to be moderately low. No noticeable growth rate is predicted for this occupation. Five major industry groups are expected to employ equally almost all Denver painters.

Employment opportunities on a national basis for production painters is expected to remain relatively stable during the 1965-75 decade. This will be primarily due to the increasing development and use of mechanized and automatic painting equipment. Several thousand job openings are expected as result of replacement needs.

Wage rates in 1964 for production painters ranged from \$2.00 to \$3.00 per hour depending on location and type of work.

Stationary Firemen

1965 Average Denver Wage Rates
\$2.92--\$3.24 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	300	300	200	-100

Industrial Groups That Are Expected To Employ
The Largest Number Of Stationary Firemen In
The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Durable Goods Manufacturing	100
2. Other Industries	100

In the Denver Metropolitan Area by 1970, employment of stationary firemen is expected to decline by 100 workers. This is one of very few jobs that is predicted to have an actual decline in employment.

According to national information, employment of stationary firemen in manufacturing is also expected to decline during the next decade. The use of automatic and more powerful equipment is expected to offset the increase in the use of stationary boilers during the next 10 to 15 years.

In 1964-65, earnings of stationary firemen located in 82 cities ranged from \$1.44 to \$3.40 per hour.

Truck Drivers

1965 Average Denver Wage Rate
\$2.03--\$3.53 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	10,600	11,300	15,600	5,600

Industrial Groups That Are Expected To Employ
The Largest Number of Truck drivers in the Denver
Area By 1970

Industry	Number Employed by 1970
1. Construction	900
2. Fabricated Metals Manufacturing	300
3. Other Durable Goods Manufacturing	600
4. Food Products Manufacturing	1,600
5. Trucking Services	3,700
6. Utilities	600
7. Wholesale Trade	1,500
8. Food Product Retailing	500
9. Other Retailing	1,300
10. Personal Services	400
11. Public Administration	400
12. Other Industries	1,100

Employment of truck drivers in the Denver area by 1970 is expected to increase by at least 1/3. The more than 15,000 workers expected by 1970 places this occupation among the top occupations among skilled and semi-skilled workers. Twelve major industry groups are expected to employ the majority of truck drivers and the trucking service group will have the largest amount for any one industry.

Nationally, a rapid increase in employment of local truck drivers is anticipated through the mid-1970's. Much of this increase will be attributed to the expected increase in the volume of freight. The rise in total business activity is a primary cause for the anticipated increase in transportation needs. The continued growth of suburban areas will contribute to increased employment.

On the average, hourly wage rates were \$3.14 for local drivers and \$2.79 for helpers as of July 1964.

Welders

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	1,400	1,500	1,900	600

Industrial Groups That Are Expected To Employ
The Largest Number Of Welders In The Denver
Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Construction	300
2. Fabricated Metals Manufacturing	500
3. Machinery Manufacturing	300
4. Other Industries	100

Employment of welders in the Denver area by 1970 is expected to increase moderately. The more than 1,900 workers expected by 1970 will not be a large employment factor among other skill craftsmen's occupations. Construction, fabricated metals, and machinery manufacturing are expected to employ the largest number of welders.

The national outlook for welding occupations is moderately good. The number of welding jobs is expected to increase by several thousand each year through 1975 as a result of the general increase in production of metal working industries and a broader use of the welding process. More and more welders will be needed for maintenance and repair work in the expanding metal working industries. Increased use of the machine resistance welding process in manufacturing autos and aircraft will contribute to the growth of this occupation.

Average hourly wage rates for 21 cities in mid-1965 ranged from \$2.51 to \$3.51.

Sewers & Stitchers

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Female Employment	600	700	800	300

Industrial Groups That Are Expected To Employ
The Largest Number of Sewers & Stitchers In
The Denver Area By 1970

Industry	Number Employed by 1970
1. Durable Goods Manufacturing	100
2. Textile Mills Manufacturing	100
3. Apparel Products Manufacturing	500
4. Other Non-Durable Goods Manufacturing	100

Employment of sewers and stitchers in the Denver area by 1970 is expected to be low as compared with other semi-skilled occupations. The rate of growth in the occupations is expected to be good even though total employment is low. The apparel products manufacturing industry is expected to employ over half of the sewers and stitchers.

The national outlook for apparel industry employment is moderate growth during the next decade. A large number of jobs will result from the nearly 75% of all needle trades workers who leave annually to get married or to raise a family. The demand for apparel in the next 10 years should increase considerably and will be a major reason for increased employment. The increasing use of labor-saving devices will tend to modify the need for increased employment.

The average hourly wage rate in mid-1965 was \$1.82.

Guards & Watchman

1965 Average Denver Wage Rates
\$1.90--\$2.85 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	1,200	1,300	1,500	500

Industrial Groups That Are Expected To Employ
The Largest Number Of Guards & Watchmen In The
Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Fabricated Metal Manufacturing	300
2. Finance, Insurance, & Real Estate	200
3. Public Administration	400
4. Other Industries	200

In the Denver area by 1970, over 1,500 guards and watchmen will be employed. This represents a moderate amount of the total semi-skilled employment in Denver. The rate of growth of this occupation is expected to be moderately good. Employment among industry groups is expected mostly in fabricated metal manufacturing and public administration.

On a national basis, employment opportunities for protective service workers is expected to increase rapidly during the next decade. One of the major reasons for the increase of protective workers is the ever expanding population and economy. These factors will bring with them an increasing need to protect life and property. Openings for women are also expected in the next decade.

The average wage for medium sized cities was \$5,000 per year in 1965.

Charwomen & Janitors

1965 Average Denver Wage Rates

Men: \$1.63--\$2.25 per hour

Women: \$1.81--\$1.89 per hour

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Male Employment	4,500	4,800	5,600	2,800
Total Female Employment	800	900	1,200	500

Industrial Groups That Are Expected To Employ
The Largest Number Of Charwomen & Janitors In
The Denver Area By 1970

Industry	Number Employed by 1970
1. Food Products Manufacturing	200
2. Eating and Drinking Retailing	200
3. Other Retail Trade	400
4. Finance, Insurance, & Real Estate	700
5. Business Services	400
6. Hotels	300
7. Entertainment and Recreation	200
8. Medical Services	500
9. Educational Services	1,500
10. Welfare, Religious, & Non-Profit	400
11. Public Administration	400

Nationally, several hundred openings for hotel housekeepers and assistants are expected on an annual basis through 1975. Aside from the need to replace present jobs many openings will result from the building of new motels and hotels. Experienced housekeepers will also find employment in hospitals, clubs, dormitories, and welfare institutions.

Wage rates vary widely for housekeepers and chambermaids. Hourly wages ranged from \$.51 to \$1.70 in a survey of 23 cities.

Checkers, Examiners, Graders, & Sorters

	1960	1965 est.	1970 est.	Additional Workers Needed by 1970
Total Female Employment	400	400	600	200

Industrial Groups That Are Expected To Employ
The Largest Number Of Checkers, Examiners,
Graders, & Sorters In The Denver Area By 1970

<u>Industry</u>	<u>Number Employed by 1970</u>
1. Electrical Machinery Manufacturing	100
2. Other Durable Goods Manufacturing	100
3. Food Products Manufacturing	200
4. Rubber Products Manufacturing	100
5. Other Non-Durable Goods Manufacturing	100

Employment of checkers and graders in the Denver area by 1970 is expected to be low as compared with other semi-skilled occupations. The rate of growth for this job will be low since only 200 new employees will be needed by 1970. Food products manufacturing will have the largest employment of checkers and graders among industrial groups.

Nationally, the employment of semi-skilled inspectors is expected to increase rapidly through 1975. Most industries that employ these workers are expected to increase their employment, especially in the electrical machinery industry. The prediction for rising employment needs will be partially offset by the increasing use of automated equipment.

Wage rates for 18 cities in mid-1965 ranged from \$1.90 to \$3.00 per hour.